



Data Transformation Lab

“Making the Scrimmage as Hard as the Game”

UNCLASSIFIED



Purpose



To provide JCW with an overview of the mission of TRADOC's Training Brain Operations Center (TBOC), details on data transformation in support of leader development, training and education, and to explore areas of mutual benefit between the two organizations.



“The Training Brain facilitates and acts as the principal enabler for continuous learning across all TRADOC lines of effort through acquiring, analyzing, creating, organizing, applying and transferring data, information, and knowledge in the context of current and future operations.”

**General Martin E. Dempsey
U.S. Army Chief of Staff**

UNCLASSIFIED



**Intel
Analysis**



**Data
Transformation
Lab**



**ISR
Training**



**Attack
the Network
Training**



Modeling & Simulations



Exercise Support

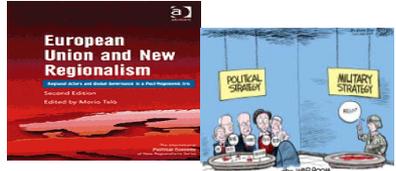


Mission

The TBOC harnesses the power of technology to quickly and accurately replicate the Operational Environment in live, virtual, constructive, and gaming environments.

Operational Environment Variables

Political



Military Factors



Economics



Society & Culture



Information & Communications



Infrastructure



Physical Environment



Time & Seasons



P
M
E
S
I
I
P
T



Data Transformation Lab Mission



The Data Transformation Lab acquires, organizes, transforms, transfers, and maintains a repository of data / information to assist in the replication of the Operational Environment.

Develop technical solutions to achieve the above.

Providing Content for the Operation Environment



Tasks



Replicate current and future operational environments thru data infusion; in order to enable and enhance training and continuous learning for soldiers, leaders, units, capability developers and concept writers.

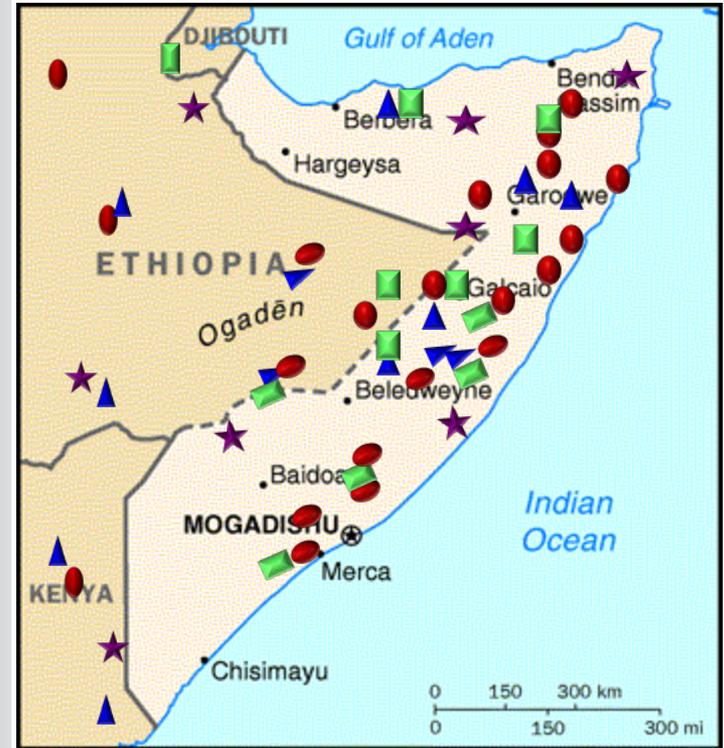
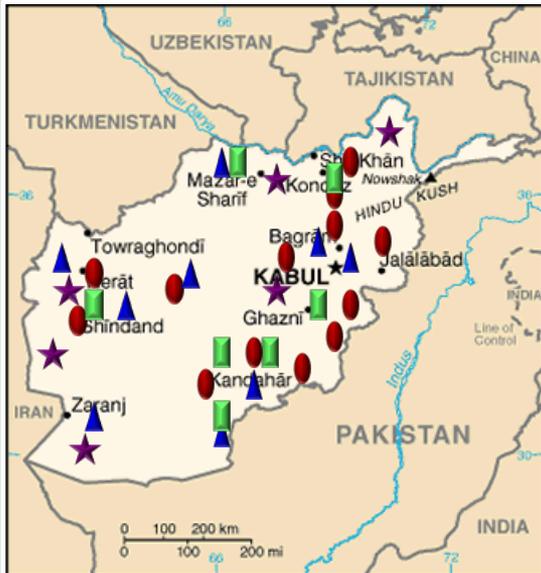
Specifically:

- **A center of innovation exploring what is possible with technology and viable for leader development, training and education (LDTE)**
- **Develop requisite applications & tools to acquire and transform data and information**
- **Transfer data to the live, virtual, constructive, and gaming (LVCG) environments**
- **Maintain data repositories to assist in the replication of operational environments**
- **Provide DCGS-A data distribution support to UE and MCTP**



G2

Replicating the OE



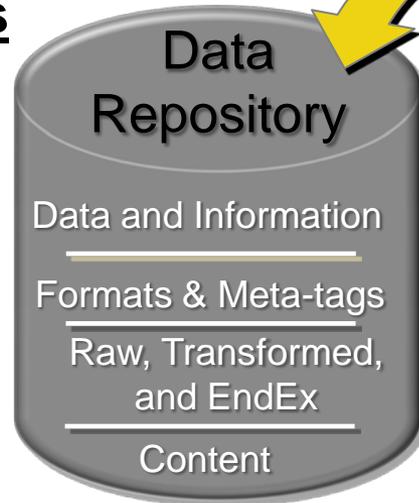
UNCLASSIFIED



Data Transformation Process

Given Training Requirements

- Geographical source and destination locations
- Data type: structured message traffic (SIGACTS, TAC Repts), free text, coordinates, etc.
- Desired content parameters
- System source
- Network



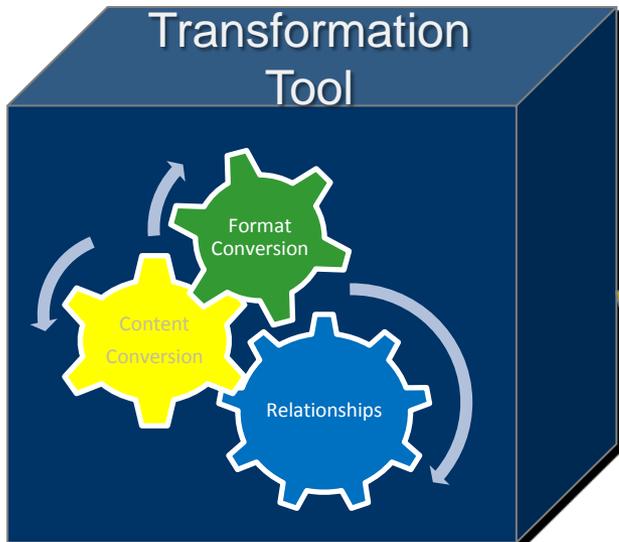
- Increased integrity
- Higher confidence

4

EndEx Data
Captured

Data Ingested into

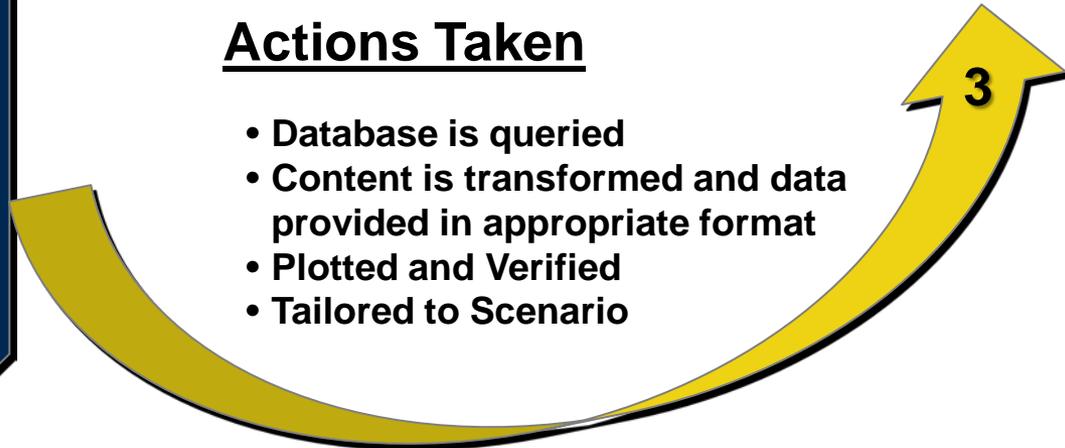
- Live
- Virtual
- Constructive
- Gaming



Actions Taken

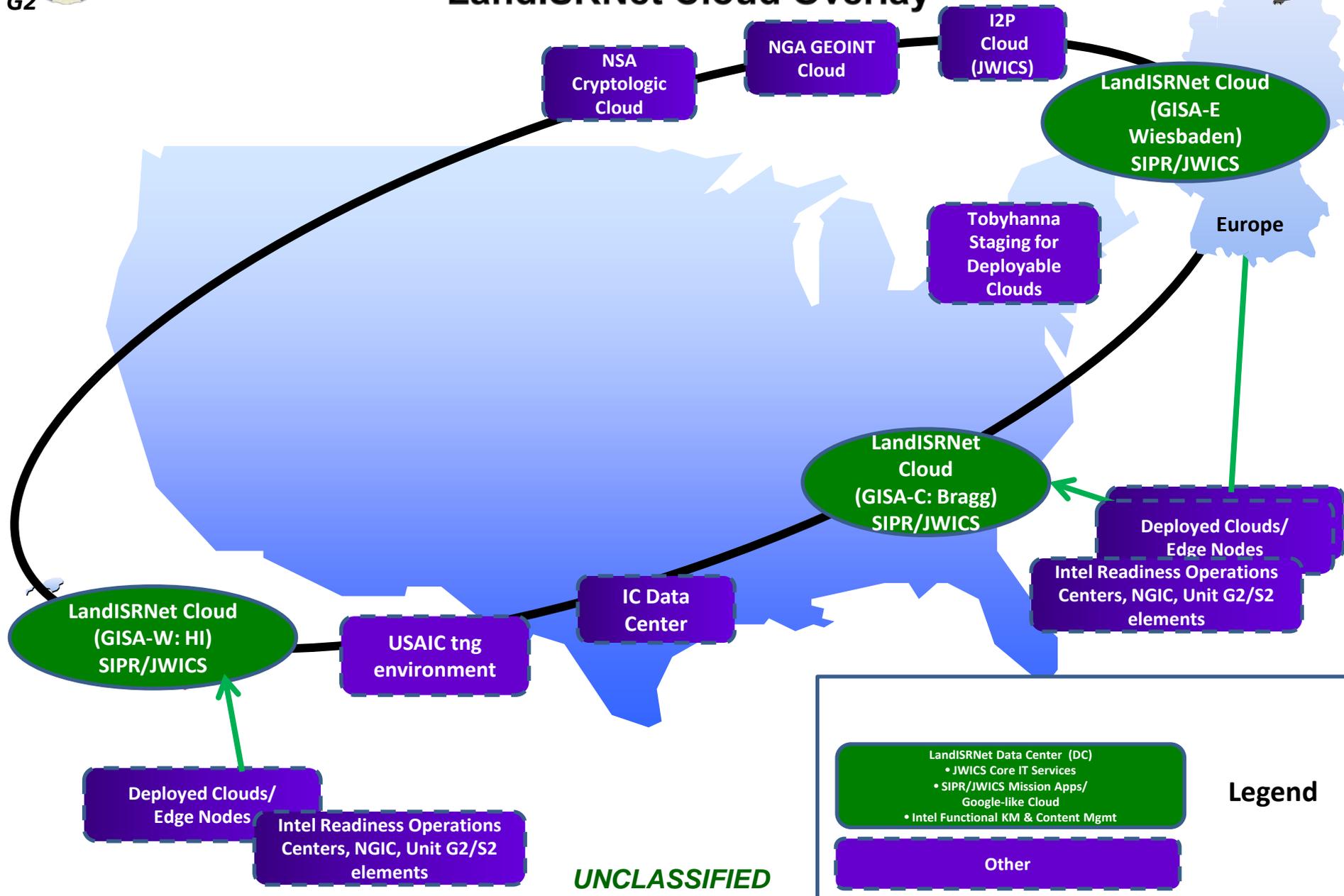
- Database is queried
- Content is transformed and data provided in appropriate format
- Plotted and Verified
- Tailored to Scenario

3



Training Brain Enterprise

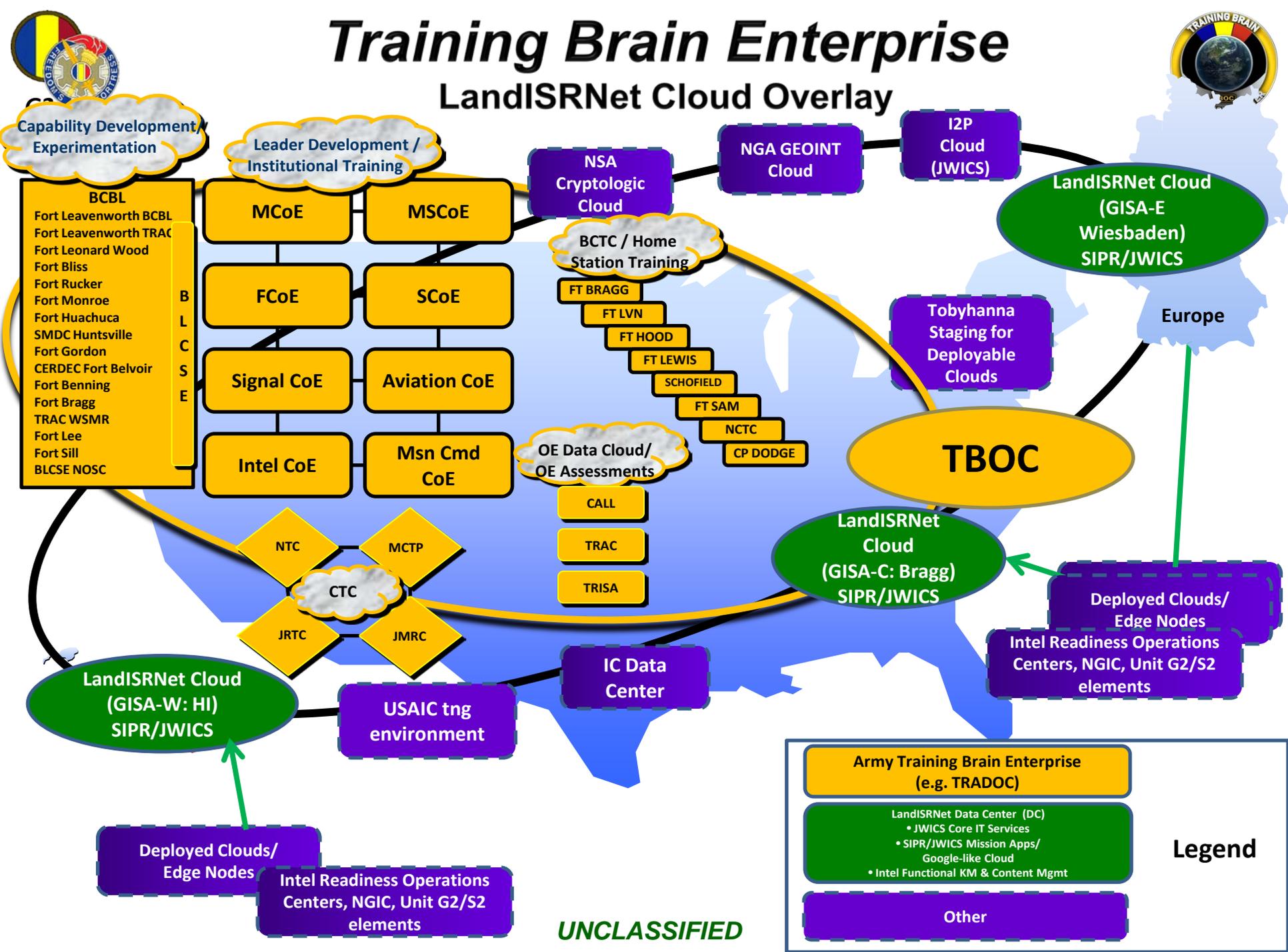
LandISRNet Cloud Overlay



UNCLASSIFIED

Training Brain Enterprise

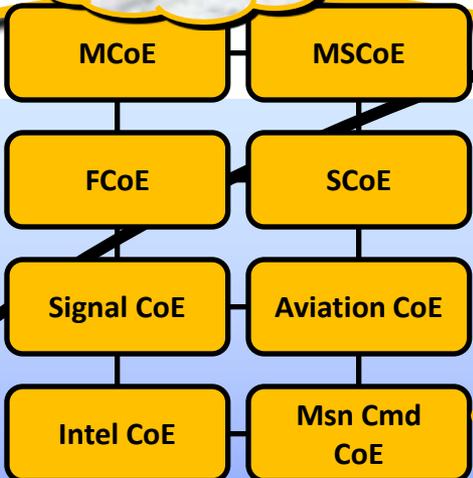
LandISRNet Cloud Overlay



Capability Development / Experimentation

Leader Development / Institutional Training

- BCBL**
- Fort Leavenworth BCBL
 - Fort Leavenworth TRAC
 - Fort Leonard Wood
 - Fort Bliss
 - Fort Rucker
 - Fort Monroe
 - Fort Huachuca
 - SMDC Huntsville
 - Fort Gordon
 - CERDEC Fort Belvoir
 - Fort Benning
 - Fort Bragg
 - TRAC WSMR
 - Fort Lee
 - Fort Sill
 - BLCE NOSC



NSA Cryptologic Cloud

NGA GEOINT Cloud

I2P Cloud (JWICS)

LandISRNet Cloud (GISA-E Wiesbaden) SIPR/JWICS

BCTC / Home Station Training

- FT BRAGG
- FT LVN
- FT HOOD
- FT LEWIS
- SCHOFIELD
- FT SAM
- NCTC
- CP DODGE

OE Data Cloud / OE Assessments

- CALL
- TRAC
- TRISA

TBOC

LandISRNet Cloud (GISA-C: Bragg) SIPR/JWICS

Deployed Clouds / Edge Nodes
Intel Readiness Operations Centers, NGIC, Unit G2/S2 elements

LandISRNet Cloud (GISA-W: HI) SIPR/JWICS

USAIC tng environment

IC Data Center

Deployed Clouds / Edge Nodes

Intel Readiness Operations Centers, NGIC, Unit G2/S2 elements

Army Training Brain Enterprise (e.g. TRADOC)

- LandISRNet Data Center (DC)
- JWICS Core IT Services
 - SIPR/JWICS Mission Apps / Google-like Cloud
 - Intel Functional KM & Content Mgmt

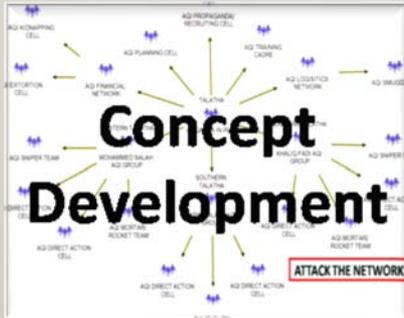
Other

Legend

UNCLASSIFIED



Expanding the Application of the OE





Expanding the Application of the OE



UNCLASSIFIED



POINT OF CONTACT



Justin Rodriguez

Data Transformation Lab

Phone: (757) 310-6668

justin.c.rodriguez2@us.army.mil

eustis.jtcoic.operations@conus.army.mil

<https://jtcoic.army.mil>

UNCLASSIFIED



“Making the Scrimmage as Hard as the Game”

UNCLASSIFIED